

# Strategic Environmental Analysis for The Basic Services Fund Phase II

By Constantine Bartel  
for the Canadian International Development Agency (CIDA).

Ellipson Consultants AG  
Basel, Switzerland  
Email: [bartel@ellipson.com](mailto:bartel@ellipson.com)  
<http://www.ellipson.com/>

## ACRONYMS

<b>BSF</b>	Basic Services Fund
<b>CBTF</b>	Capacity Building Trust Fund
<b>CHF</b>	Common Humanitarian Fund
<b>CHF</b>	Common Humanitarian Fund
<b>CPA</b>	Comprehensive Peace Agreement
<b>DFID</b>	Department for International Development
<b>ECHO</b>	European Commission Humanitarian Organization
<b>GF</b>	Global Fund
<b>GoNU</b>	Government of National Unity
<b>GOSS</b>	Government of Southern Sudan
<b>IDP</b>	Internally Displaced People
<b>IMAC</b>	Inter-ministerial Approval Committee
<b>JAM</b>	Joint Assessment Mission
<b>LAS</b>	League of Arab States
<b>MDGs</b>	Millennium Development Goals
<b>MDTF</b>	Multi Donor Trust Fund
<b>MDTF-SS</b>	Multi-Donor Trust Fund Southern Sudan
<b>MoEST</b>	Ministry of Education, Science and Technology
<b>MOH</b>	Ministry of Health
<b>NGO</b>	Non-governmental organization
<b>NPEM</b>	National Plan for Environmental Management
<b>OCHA</b>	Office for Coordination of Humanitarian Affairs
<b>PAPFAM</b>	Pan Arab Project for Family Planning
<b>PTA</b>	Parent Teachers Association
<b>RRP</b>	Recovery and Reconstruction Programme
<b>SEA</b>	Strategic environmental assessment
<b>SHHS</b>	Sudan Household Health Survey
<b>SPLA</b>	Sudan Peoples Liberation Army
<b>SRF</b>	Sudan Recovery Fund
<b>UN</b>	United Nations
<b>UNDP</b>	United Nations Development Program
<b>UNFPA</b>	United Nations Population Fund
<b>UNICEF</b>	The United Nations Children's Fund
<b>UNMIS</b>	United Nations Mission in Sudan
<b>USAID</b>	United States Agency for International Development
<b>WB</b>	World Bank
<b>WFP</b>	World Food Programme
<b>WHO</b>	World Health Organization

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## 1.0 EXECUTIVE SUMMARY

This Strategic Environmental Assessment (SEA) report examines the positive and negative impacts that could arise from the second phase of Basic Services Fund initiative and provides recommendations for the design of the next phase of the funding mechanism. The study fulfils the 1999 Cabinet Directive's demand for a SEA of all policy, plan or program Proposals that are funded by the government of Canada.

The implementation of the Comprehensive Peace Agreement (CPA) signed in 2005 poses a significant challenge to the stability of Sudan. The BSF seeks to contribute to this stability by providing a tangible peace dividend to the people of Southern Sudan through participatory approaches that help communities identify and prioritise their own perceived needs, to plan community oversight mechanisms for basic service provision, and to engage effectively with the government and with community organisations.

The Basic Services Fund is designed to benefit the people in Southern Sudan, by providing a package of services that include:

- Building and renovating schools, health facilities and water infrastructure
- Training, skills transfer, apprenticeships for local artisans, programs to change attitudes and practices, as well social education
- Community mobilisation and empowerment - setting up and training committees and PTAs to maintain and run services
- Strengthening local structures - leadership training, know-how in community development and monitoring, awareness on peace, gender, civic responsibilities etc. to enhance project sustainability.

Currently, Southern Sudan has no legislation on environment impact assessment, however the chapter on the Environment of the Interim Constitution of Southern Sudan (2005) safeguards the right to a clean and healthy environment and mandates the protection of the environment for the benefit of present and future generations through reasonable legislative action and other measures such as the National Plan for Environmental Management (2006) – which acknowledges the pressures on the environment created by immediate human needs as well as global climate change, and the need for clear policies, plans and projects to address them.

Southern Sudan also lacks environmental guidelines for the provision of basic services, even though the government has environmental priorities for water, sanitation, and urban and town planning. Multilateral institutions do require environmental impact assessments of the project they fund. Where necessary, WHO standards are applied by the BSFs implementing NGOs.

The report concludes that, overall, the negative environmental impacts of the BSF will not be significant. It also notes that the enormous capacity gaps in Southern Sudan and the region's fast growing population will continue to put pressure on basic service provision and, in the long run, could generate environmental pressures and negative impacts. Through its secretariat, the initiatives funded have already demonstrated their effectiveness in delivering services in the first phase of the BSF and have drawn lessons to be taken up in the second phase of the initiative.

The key environmental impacts of the BSF relate to the construction and ongoing operations of schools, clinics and boreholes. In preparing their proposals, BSF funded NGOs are required to undertake an environmental screening to assess the environmental impacts of their projects. Environmental Screening Notes (ESN) provide useful materials and good practice examples that BSF project managers are able to consult when preparing project proposals. However, the use environmental technologies, such as low cost, environmentally friendly building materials able to mitigate negative impacts, are not being actively pursued.

One of the main reasons is the lack of capacity within the current group of implementing NGOs to take up technology-related mitigation options.

The economic impacts of the BSF relate to the population's individual and collective health and education status, and to their implications for economic development and performance. There is a need for predictable and sustained investment in basic health, education, and human capital development. It is a BSF requirement that individual BSF projects demonstrate a clear strategy for addressing social inclusion. Although they are often too busy to regularly attend, senior level officials are engaged in the BSF Steering Committee. This mechanism should improve the ownership and institutional coordination of BSF activities. Senior GoSS officials recognize the BSF as a relatively effective bridge between relief and developmental approaches to service provision. It is likely that, in the medium term, non-state actors will continue to play a dominant role in delivering services to remote regions of Southern Sudan, despite the progress that the BSF is making in building the capacity of Southern Sudanese.

The sustainable provision of services would require the participation of the Government of South Sudan (GoSS) at all levels of the project cycle. However a major concern is its lack of capacity and skilled people. Given limited capacity, the BSF's approach to financing non-state delivery of services will continue to play a central role in ensuring the expansion and improvement of basic services in Southern Sudan.

Among the short term recommendations are calls to:

1. Develop a comprehensive questionnaire able to generate indicators that can facilitate effective monitoring and evaluation of the environmental impacts and of related capacity building efforts;
2. Develop a compendium of environmental technologies for basic services delivery to equip BSF project managers with technology based solutions and options;
3. Invest in capacity, within the BSF secretariat specialised in procurement for the BSF implementing partners, with the aim of bringing down the costs of construction and freight;
4. Develop a BSF Electronic Database to store and share social indicators, lessons learned, impacts, best practice guidelines and progress;
5. Facilitate the secondment of a staff member (environment officer) to the BSF secretariat from the department of the environment, Ministry of Housing, Physical Planning and Environment, to monitor environmental indicators and document project level impacts.
6. Devise an active role for the GoSS in monitoring the quality of water and sanitation and in developing strategies and national policies to encourage the use of environmental technologies.

## **2.0 PUBLIC STATEMENT**

The chapter on the Environment of the *Interim Constitution of Southern Sudan, 2005* proclaims that (1) every person or community shall have the right to a clean and healthy environment. (2) Every person shall have the right to have the environment protected for the benefit of present and future generations, through reasonable legislative action and other measures.

*The National Plan for Environmental Management (2006)* – NPEM for post-conflict Sudan acknowledges the pressures on the environment, the immediate human needs and global climatic changes. The GoSS recognized the priority need for sustainable economic development, based on sound environmental management, and endorsed the preparation of a National Plan for Environmental Management in post-conflict Sudan. The NPEM should facilitate informed political decision-making, definition of priority actions, commitment, and structural interventions to promote sustainable development, across the country and to

address constructively and coherently the pressing challenges facing environment and development in Sudan.

### **3.0 BACKGROUND AND CONTEXT**

The civil war has

- destroyed physical infrastructure,
- provoked the best educated to seek refuge abroad,
- diminished fiscal resources
- eroded the institutional fabric, including administrative structures and financial management systems,
- interrupted the delivery of basic public services, notably health and education; and
- prevented the operation of democratic processes.

Expanding access to education, health, and water and sanitation is a critical component of the peace dividend. Although many communities in the South have organized themselves to provide some level of education services, domestic resources have been negligible and external support limited. Education in the South has been almost entirely administered by communities and staffed by volunteers. Quality and enrolment rates—particularly of girls—are very low. The gross primary enrolment rate is estimated at 20 percent, but only one in four enrolled are girls. The need for a huge increase in investment in education in Southern Sudan is underscored by demographics—an estimated 60 percent of the Southern Sudanese population is under 18 years old. The action plan for basic education involves building and rehabilitating schools, improving the learning environment, and taking over the payment of teachers by the GOSS, as well as concerted efforts on recruitment and training. The programmes proposed by the Joint Assessment Mission (JAM) would more than double primary school coverage by 2011, from 20 to 55 percent, with a major focus on girls; enrol 15 percent of out-of-school youths in alternative education programmes; standardize the curricula; and make learning content contextually and culturally relevant.

The main health priority is to increase utilization and strengthen quality of primary and first-referral health care services. This will involve financing reforms, strengthening of institutional capacity, particularly in more deprived states, policy and strategy development in key areas, investments in facilities and human resources, and increased financing, quality, and coverage of basic preventive and curative service provision. Both morbidity and mortality are much affected by water-related diseases, pointing to the importance of programmes to promote safe access to water and sanitation services. The priorities are to increase access, strengthen management, build sector capacity, and encourage community ownership and sustained behaviour change.

Water and sanitation<sup>1</sup>: the critical link between the improvement of health outcomes and an increase in access to safe water and sanitation is highlighted in the JAM framework. It proposes to double rural safe water and sanitation access in the next 10 years. However, the Water Supply and Sanitation policy is not yet developed. Overall however, policy objectives in the sector will include the integrated management of water services and delivery of services by all stakeholders including government, donors, NGOs and the private sector. The government will focus on supervision, regulation and coordination rather than direct implementation. All newly constructed and rehabilitated schools and health facilities should have access to a safe water point within 100 metres, and have sanitary latrines for both girls and boys. Boreholes are being built/rehabilitated and equipped with hand-pumps.

The lack of capacity and skills is creating major challenges for the government and the implementing NGOs in seeking to recruit or build the capacity for qualified local staff for the construction, maintenance and protection of safe water points. This is especially striking in marginalized areas where no government nor outside assistance has occurred for up to a

decade leaving the levels of education, as well as social and infrastructure development, at almost zero. The provision of basic services such as water points represents a basic peace dividend that should further serve as cohesive examples for communities that peace is having dividends.

### **Impact of population growth on the BSF and the environment**

This population grew by as much as 2.6 million in 2005 as a result of returnees coming back (both refugees and internally displaced people) and the high natural population growth (almost 3% a year) by another 1.3 million in 2008. Another 0.3 million are expected in 2009.

Table 1. Projection of population growth in the Southern Sudan<sup>1</sup>

Year	2003	2005	2006	2007	2008	2009	2010	2011
Population in millions	7.5	10.1	10.6	11.0	11.4	11.7	12.0	14.0

Source: New Sudan Centre For Statistics And Evaluation in association with UNICEF

This is coupled with the youngest population in the world. At 21%, the southern Sudan has the highest proportion of under fives of any country. The population is projected to increase with 2.3 million IDPs/refugees returning gradually, and that the population growth will stay in the same range (2.85%), adding almost 300,000 people a year. What have not been taken into account are traders and people seeking employment from the neighbouring countries and the North of the country especially from the Darfur region. According to estimates by UNMIS the population of Juba now stands at over 1.2 million. With lack of a sustainable waste management system (i.e., sewage network, treatment plant, landfills, dumping sites and recycling facilities) and the lack of capacity in the three levels of Government, Juba town is marked by makeshift garbage dumps that are formed on the side of the roads and are left to fester at over 40 degrees Celsius heat for months causing health hazards to the citizens. Seasonal streams in the town instead of being recreational sites have been turned into waste dumps and public toilets the situation is not tackled soon will result in a health and environmental disaster.

Though this is not caused by the operations of the BSF, it is an environment that affects its overall impacts. This will continue to inflict a major drain on resources, pose negative impacts to the environment and exert pressure on accessing basic health and education services. The population distribution and growth rates alone dictate the need for additional funding mechanisms that do not only fill the gaps but would not only unleash the construction of hundreds of schools, hospital and services, but also lay the basis for training and skills development with the participation of a broad constituency of actors. Whilst appropriately located land for schools, clinics and hospital extensions does not present a problem, there is an urgent need for buildings and equipment, and for appropriately qualified professional and technical staff. The starting point is a needs assessment and reliable projections for medium-term expansion upon which investment programmes can be built and human resource strategies developed.

## **4.0 METHODOLOGY**

The Strategic environmental assessment (SEA) process involved analysing project documents and filling out a written questionnaire and conducting interviews with field managers of the implementing NGOs, Government officials, members of the BSF steering committee and the

<sup>1</sup> The debate on the exact population of Sudan is ongoing. Most figures, including by the UN, are approximations for planning purposes, but also used for other purposes. The U.N. puts Sudan's population at 37.8 million but the numbers are difficult to verify. The BSF own maps provided by the WHO show huge variations in estimates and areas with no data (see maps in Annex). For example in 2006 estimates of people in transit areas ranged from 511,000 to 1,530,000 (OCHA IDP Projections (2005)). Until a proper census can be conducted, southern Sudanese political forces maintain the population in the south is 1/3 of Sudan's population. Assuming the projected population in the Southern Sudan were significantly higher, one could still have an idea of the needs given the significant gaps in the number of teachers, schools and health centres in Malawi to meet the needs of the 13 million inhabitants.

BSF secretariat and local stakeholders in order to draw conclusions and recommendation that may be considered in the design of the next phase of the BSF initiative. The SEA is a systematic process of evaluating the environmental effects of a policy, plan, or program and its alternatives. The assessment is not limited to direct impacts on the natural environment but also relates to aspects of environmental governance, identifying areas for regulation, Social and economic impacts, capacity building needs to rectify the structural problems faced by the current design of the BSF to deliver on primary education, health and water and sanitation to the population. Monitoring and assessment are also important aspects of the Strategic Environmental Assessment.

#### ***4.1 Method and Sources***

The first stages the assessment is seeking out and analysing environmental information through desk research and direct interviews with stakeholders. The BSF policy framework, progress reports the individual proposals by the implementing NGOs are examined at various hierarchical administrative, and implementation levels, starting by looking at the outcomes and outputs of the implementing NGOs, the role of regional government, State and municipal authorities.

As the environmental implications of the BSF are inherently site and project specific it is not possible to consider the environmental implications of individual activities and policy options for all the SEA issues in each project. Within the context of the BSF comment will be provided on a set of SEA objectives developed as a means by which the SEA can be assessed. These include whether the BSF:

- Answers the need for access, protection or improvement of water quality needs for effective recovery and peace-building in Southern Sudan through the provision of Basic services;
- Contributes to a recovery and development-oriented approach that is predictable;
- Contributes to the capacity development of government officials, front-line service providers, and communities to deliver and oversee service provision;
- Encourages the engagement of local government in the planning and prioritisation of projects; and
- Assesses whether the process by which these objectives are achieved have positive or negative impacts on the environment.

## **5.0 OVERVIEW OF THE INITIATIVE**

At a time when the Government of South Sudan (GoSS) is establishing itself and unable to provide its citizens with basic services, DFID in consultations with the GoSS and other development partners agreed to provide support to expand the coverage, quality and use of basic services in South Sudan. It was also recognised that these services will mostly be delivered through the international relief effort, including non-governmental organisations. The Basic Services Fund is designed to benefit more than 900,000 people, providing such essential services as training teachers and health-sector staff. The basic package of services provided include:

- Building and renovation of schools, health facilities and water infrastructure
- Training, skills transfer, apprenticeship for local artisans and change of knowledge, attitude and practices, social education
- Community mobilisation and empowerment - setting up and training of committees and PTAs for the maintenance and running of services
- Strengthening of local structures - leadership training, know how in community development and monitoring, awareness on peace, gender, civic responsibilities etc. is an important project component to enhance sustainability.

The goal of the 2008 – 20010 phase of the BSF is that Southern Sudanese people are healthy and educated. Specifically it should reduce morbidity, mortality and disability associated with diseases and water borne illnesses through provision of sustainable and integrated primary health care and environmental health services to the deprived and marginalized people of Southern Sudan. In education it should lead to increased access to quality education and on water and Sanitation it should improve access to, and use of, clean water and in the process reduce diseases that are directly linked to poor sanitation, high rate of morbidity and mortality of water borne or water related diseases (oral-faecal infection outbreaks such as cholera, dysentery, hepatitis, etc).

## **6.0 FRAMEWORK FOR ASSESSING ENVIRONMENTAL EFFECTS**

This SEA has been structured around analysis of the impacts identified by the BSF. They focus on the ability of the BSF to provide, contribute to or address sustainable development issues. Central to this is achieving the MDGs by addressing Southern Sudan’s human development needs and its efforts through the expansion and provision of basic services (health, education and water/sanitation) to the most underserved areas of Southern Sudan. While the trickle down effects could be its contribution to recovery and peace-building, the following issues form the scope of the strategic impacts assessment.

### ***6.1 Reducing environmental impacts on the physical environment***

The key environmental impacts of the BSF relate to the construction and ongoing operation of schools, clinics and boreholes. In preparing their proposals, BSF funded NGOs must assess the environmental impacts of their projects. The location of schools and clinics must consider any environmental consequences. BSF funded service providers are also expected to ensure that adequate sanitation and water facilities are provided at the schools and health posts they construct or rehabilitate. Health providers are expected that basic waste management systems are in place in project sites. A key concern will be that these practices are maintained once the handover of the facilities is complete.

### ***6.2 Economic impacts***

Southern Sudan has one of the highest construction and maintenance costs in the world; there are few domestic contractors, there is limited transport infrastructure and key materials (e.g. cement and aggregate) need to be imported. The foundations of economic growth in an environment like the southern Sudan lie in the role of both human and physical capital, technological progress and the extent to which they can be affected by government intervention. An educated and healthy population is fundamental in this regard. Without sustained investment in basic health and education, human capital development in Southern Sudan will continue to be low and growth will be limited.

### ***6.3 Social impacts***

The southern Sudan ranks among the poorest regions in Africa. An intricate web of factors ranging from prolonged conflict, lack of infrastructure for basic service delivery and a range of cultural and socio-economic factors, deter young people from joining the education system. The project’s emphasis on underserved areas and areas expecting high rates of IDPs and returnees, ensures that BSF funded projects are targeted to some of the most needy and underserved groups in Southern Sudan. It is a BSF requirement that individual BSF projects demonstrate a clear strategy for addressing social inclusion.

### ***6.4 Institutional capacity***

GoSS officials are actively engaged in the BSF Steering Committee—particularly around the funding allocation decisions. However ‘the BSF has yet to realise its potential to “contribute to GoSS” capacity to form policy and to direct service implementation’.

## ***6.5 Political impacts***

Both the Sudan and Southern Sudan face significant challenges. The Government of National Unity is fragile and the Comprehensive Peace Agreement (CPA) will face obstacles in the run up to the 2011 referendum. While the Government of Southern Sudan has made significant strides in its transition from a guerrilla and political movement to a government, institutions and capacities are still weak and therefore governing remains a major challenge.

The BSF, its Secretariat and implementing NGOs are faced with this reality. The BSF hopes to address this through 'increased community capacity to create community oversight mechanisms for basic services and to engage effectively with government and non-state service providers.' There are also efforts to entice the Southern Sudanese Diaspora to step in and fill the skills gap.

It also assesses the updated Environmental Screening Note (ESN) which provides useful materials and good practice examples to BSF project managers to prepare project proposal.

## ***6.6 Delivery mechanisms***

The delivery process of the BSF is designed to ensure that program planning, design and implementation, takes into account the opinions and perceptions of the target communities thus enhancing the positive impacts of interventions and making them as durable as possible. The BSF and the implementing NGOs place a strong emphasis on the involvement of key stakeholders in all aspects of the programme. This mechanism is reflected in the design of the initiative.

From its initiation in 2005, key government officials from the Ministries of Finance and Economic Planning, Health, Education, Water Resources and Local Government, donor from the EU and US, the administrators of multi-donor funds (MDTF, CHF and SRF); and non-government stakeholders were engaged in its design. Their recommendations shaped the programme and continue to do so in terms of priority setting and design of the BSF.

The implementing NGOs, such as Oxfam, employ a conflict sensitive approach engaging with all stakeholders, including IDP's, returnees and receiving communities, to ensure that vulnerability and need is addressed through robust, transparent criteria and existing community mechanisms. The participatory planning process happens at two levels:

- Implementing NGOs use participatory approaches to facilitate communities to identify and prioritise their own perceived needs and to plan. Meetings with community leaders, local authorities, parent/teacher associations and women's groups are used to ensure that the views and needs of all stakeholders are represented.
- BSF initiative and implementing NGOs: The implementing NGOs are permanent members of steering group of the BSF and also part of sectoral steering committees of water, health and education policy. The NGOs are therefore in a strong position to input lessons learned into the BSF process.

The BSF approach of funding non-state service provision while engaging the government in decision making and oversight has proven to be reasonably efficient and effective. After a slow start, the BSF has been relatively quick in making decisions and allocating funds. It has delivered tangible 'peace dividends' to the communities in which it works and its projects are having a real impact in rural communities.

## **7.0 SUSTAINABLE DEVELOPMENT: POLICY AND LEGAL CONTEXT/REQUIREMENTS**

### ***7.1 Mandate***

Through the Paris Declaration on Aid Effectiveness (2005), donors – including the four donors that will contribute financially to the second phase of the Basic Services Fund, that is, Canada, the United Kingdom, the Netherlands and Norway – reiterated the importance that

they give to promoting a harmonized approach to environmental assessments. Specifically, they committed to: “strengthen the application of [environmental impact assessments] EIAs and deepen common procedures for projects, including consultations with stakeholders; and develop and apply common approaches for “strategic environmental assessment” at the sector and national levels.” (Art. 41)

Canada's Official Development Assistance (ODA) is concentrated on six program priorities, one of which is the environment. The environment priority is "to help developing countries to protect their environment and to contribute to addressing global and regional environmental issues".

*The Canadian International Development Agency (CIDA) has an Environmental Sustainability Policy that is based on this ODA priority and requires CIDA to integrate environment in all its decision-making and activities. The CIDA Sustainable Development Strategy (SDS) provides an opportunity to plan and reflect upon CIDA's contribution to sustainable development both through its internal and programming operations. Its four core mutually reinforcing objectives are to support equitable economic development; support social development, with particular emphasis on people living in poverty; support environment and natural resources management; and support progress in democratic governance and human rights.*

*The 1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals notes that Ministers expect a Strategic Environmental Assessment (SEA) of all policy, plan or program proposals to be conducted when a) the proposal is submitted to an individual Minister or Cabinet for approval; and b) implementation of the proposal may result in important environmental effects, either positive or negative. More recently, the President of CIDA issued: the CIDA Implementation Directive on Strategic Environmental Assessment of Policy, Plan and Program Proposals, providing specific direction to CIDA and in particular, requiring full and ongoing compliance with the 1999 Cabinet Directive. In support of the directives, CIDA has prepared a handbook on Strategic Environmental Assessment of Policy, Plan, and Program Proposals.*

### **7.2 Environmental Policy Framework**

Currently there is no Environmental Policy for Southern Sudan. A number of organisations have offered to assist in providing support to establish a policy that is expected to follow best practices from other countries. The policy is in rough draft form, and will need to go through several iterations and public comment, incorporating input from other ministries, as well as possibly from NGOs and others in the private sector.

### **7.3 Environmental Priorities of the GoSS**

Between 2005 and 2006, the number of institutions engaged in environment and natural resources issues went from zero to five; but as of 2007, USAID and UNEP are the only donors working directly in the environment sector<sup>ii</sup>. Other donor's participation in the environment sector is coordinated through the joint donor-GOSS Natural Resources Budget Sector Working Group. Some initiatives in the environment sector that may be relevant to the BSF that have been implemented or are being considered are:

- UNEP: Post-Conflict EA. The initiative provided computers and phones and is supporting the Environmental Information Center.
- Geographical Information System (GIS) data center: GOSS is interested in creating a GIS data center to house data and expertise. Funding has not yet been identified.
- The World Bank: The World Bank-managed Multi-Donor Task Force (MDTF) is establishing a socio-environmental safeguard mechanism to review development activities.
- Of relevance to the water, sanitation, and urban/town planning sectors are:

- The UNDP Urban Management Programme (2006-2009) to provide broad policy and technical support to urban area governments;
- UN Habitat is conducting assessments and capacity building in urban planning for Southern Sudan;
- The Nile Basin Initiative: which aims to develop and implement a shared vision “to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources.”

#### ***7.4 How the BSF could contribute to GoSS environmental policies***

The GoSS “Draft Budget Sector Plan, 2008-2010” identifies the following initiatives:

- The Directorate of the Environment; Conduct Environmental impact assessment and environmental research
- Raise environmental awareness including through the development of an environmental information centre;
- Build capacity of GoSS staff on environmental issues;
- In the land use-planning sector, in 2005, the GOSS launched an urban development initiative to be implemented in the ten State capitals. Infrastructure improvements are to cover water and sanitation, roads and drainage, power supply, and government buildings.

The GoSS priorities in the rural water sector<sup>iii</sup> are:

- The development of Rural Water Policy guidelines and standards for all levels of Government
- Technical and financial support for State-level development of rural water supply (boreholes);
- Assessment of human resources requirements in State Directorates of Rural Water and capacity development.

The key for GoSS is the ability to implement policies, this requires clear responsibilities of the directorate of the environment and line ministries, and decentralization at least to State level, with trained and equipped staff<sup>iv</sup>. For example, the management of water resources are currently under the jurisdiction of several ministries: the GOSS Ministry of Water Resources and Irrigation, Ministry of Housing, Physical Planning and Environment, and the Ministry of Rural Development and Cooperatives.

#### ***7.5 Relevance of the BSF to government plans and priorities***

The BSF contributes directly to the goals of the 2005 Interim Constitution for Southern Sudan, which declared that every citizen in South Sudan has the right to education and health care without discrimination. Activities by Medair and Tearfund are carried out in accordance with the South Sudan Ministry of Health Basic Package of Health Services (BPHS)<sup>2</sup> and will directly contribute towards the achievement of Millennium Development Goals (MDGs) 4, 5 and 6.<sup>3</sup>

In the land use-planning sector, in 2005, the GOSS launched an urban development initiative to be implemented in the ten State capitals. Infrastructure improvements are to cover water and sanitation, roads and drainage, power supply, and government buildings.

In 2008, GoSS identified expenditure priorities for 2008-11. Three of these priorities (primary health care, basic education and water) relate directly to the service delivery programme of the BSF. The areas that are identified are :

- Technical and financial support is available for State-level development of rural water supply (boreholes);

<sup>2</sup> In line with SPHERE indicator under health systems and infrastructure standard 2 - “Health services incorporate or adapt existing national standards and guidelines of the disaster-affected or host country”

<sup>3</sup> In line with MDG, 4: Reduce infant mortality rate, MDG 5 Improve Maternal Health and MDG 6 Combat HIV/AIDS, malaria and other diseases.

- Southern Sudanese people are healthy and educated.
- To provide new or improved safe water sources to host communities, IDPs and returnees in south Sudan;
- To promote awareness of sound hygiene and the use of good sanitary practices in the communities served by water programme;
- To increase the number of skilled local Sudanese to maintain new and existing water points and educate the community on good sanitary practices and hygiene awareness
- To ensure that the Directorate of Environment conduct environmental profiling and research;
- To raise environmental awareness including through the development of an environmental information centre;
- To build capacity of government staff on environmental issues;
- To develop Rural Water Policy guidelines and standards for all levels of Government; and
- To assess human resources requirements in State Directorates of Rural Water and capacity development.

However, for impact assessment purposes, there are currently no government environmental guidelines for the provision of basic services. Individual Programme managers are however expected to undertake an environmental assessment of their projects and activities.

While the objectives and operations of the BSF are closely matched with government policy, the extend of the efforts needed are anecdotal due to the lack of a comprehensive needs assessment of numbers of teachers, health workers, health centres and schools they is needed to address the dynamic situation. A comparison with Malawi based strictly on the comparable population and as least developed country (LDC) should provide an indication of the needs and therefore the task that the region is facing. The population of the southern Sudan is projected between 12 and 14 million in 2011 and Malawi's recent census puts the population at 13 million. Also note that the Malawi government statistics indicate deficits in the required services. For example, primary education needs 8500 more teaches. Table 2 shows the BSF outputs in south Sudan as an important deliverer of basic services compared to current levels in Malawi.

Table 2 is an approximation of the effort needed to provide Basic Services in Southern Sudan.

A comparison to highlight the needs	South Sudan	Malawi
Population	11.000,000	13.000,000
<b>BSF outputs in 2008</b>		
• Primary Schools completed/under construction	21	3,300
• Trained teachers	1000	+45,075
• Health facilities rehabilitated/being supported	♦ 58	♁350
• Water points and one gravity scheme	215	Over 2000
<b>Water and sanitation coverage</b>		
• Enrolment ratio in primary school	20%	‡87%
• Improved Drinking Water Coverage	27%	73%
• Improved Sanitation Coverage	15%	61%

Note: Other schools and health centres are operational but the services are very poor compared to the BSF managed schools and health centres.

♦ These health facilities are in 4 out of the 10 States

+ Deficit of about 8500 teachers according to government statistics

♁ Number of public sector hospitals

‡ Primary school enrolment 2000-2006

With regards to access to water, there is a need to documenting and keeping an inventory on the positioning of water points and how many people have access, as well as at their sustained functionality. Table 3. Sketches the priorities, targets and activities for basic services 2008-11. Beyond the scope of the BSF are direct activities for building Capacity for

Environmental Policy development & implementation, Peace and Security, Roads and Livelihoods.

**Table 3. GoSS targets and activities for basic services 2008-11**

GoSS Priority area	2011 Targets	BSF Main Activities
<b>Primary Health Care</b>	<ul style="list-style-type: none"> <li>• Provide 50% of the population with basic health services.</li> <li>• Reduce infant and maternal mortality rates by 25%.</li> <li>• Increase routine vaccination coverage from 30% of the population to 90%.</li> <li>• Increase the awareness of HIV/AIDS from 5-10% of the population to 90%.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide basic health services to 6 million people.</li> <li>• Reach 9 million people through vaccination campaigns.</li> <li>• Increase the stock of functioning health facilities by 10%.</li> <li>• Train 4,000 health workers.</li> <li>• Undertake HIV/AIDS awareness campaigns.</li> </ul>
<b>Basic Education</b>	<ul style="list-style-type: none"> <li>• Increase the gross primary enrolment rate to 1,762 million children.</li> <li>• Increase girls' enrolment to 40%.</li> <li>• Increase primary school structures by 50%.</li> <li>• Attain pupil-teacher ratio of 50:1 in primary.</li> </ul>	<ul style="list-style-type: none"> <li>• Recruit 15,000 primary teachers and 5,700 AES instructors.</li> <li>• Train 13,000 existing teachers.</li> <li>• Rehabilitate or construct 500 primary schools.</li> <li>• Provide school feeding to 200,000 pupils.</li> </ul>
<b>Water &amp; Sanitation</b>	<ul style="list-style-type: none"> <li>• Increase the proportion of the rural population with access to clean water to over 40%.</li> <li>• Provide new &amp; rehabilitated schools and health facilities with access to safe water and sanitation.</li> <li>• Increase awareness of hygiene amongst the rural population.</li> </ul>	<ul style="list-style-type: none"> <li>• Construct 6,500 new boreholes.</li> <li>• Maintain &amp; repair 3,650 existing boreholes.</li> <li>• Construct 4,550 latrines.</li> <li>• Sanitation and hygiene awareness campaigns.</li> </ul>
<b>Capacity for Environmental Policy development &amp; implementation</b>	<ul style="list-style-type: none"> <li>• Environmental profiling and research by Directorate of the Environment;</li> <li>• Raise environmental awareness including through the development of an environmental information centre;</li> <li>• Build capacity of staff on environmental issues;</li> <li>• Develop Rural Water Policy guidelines and standards for all levels of Government</li> <li>• Assess human resources requirements in State Directorates of Rural Water and capacity development.</li> </ul>	Opportunities for bilateral cooperation on environmental issues
<b>Livelihoods</b>	<ul style="list-style-type: none"> <li>• To improve rural livelihoods and income generating activities</li> </ul>	Cooperation on livelihood issues
<b>Roads</b>	<ul style="list-style-type: none"> <li>• To rehabilitate and build road infrastructure, to promote socio-economic &amp; private sector development</li> </ul>	Cooperation on infrastructure and income generation issues
<b>Security</b>	<ul style="list-style-type: none"> <li>• To develop an efficient and effective armed forces, to safeguard security &amp; implement the CPA</li> </ul>	

## 8.0 ANALYSIS OF THE ENVIRONMENTAL EFFECTS AND THEIR IMPORTANCE

### 8.1 Scope of the SEA

This SEA report provides options and lessons learned of the BSF initiative at the strategic level. It does not constitute an environmental evaluation of specific activities, which will be conducted through a separate process. The enormous capacity gaps in south Sudan put enormous pressure on the system. With very few skilled or educated people, training to improve the skills and knowledge resource base for future manpower in the short and longer term is seen as the utmost priority. The report will attempt to provide recommendations to addresses the issue of capacity.

The report therefore seeks to broaden the perspectives of the BSF to include the integration of environmental and social considerations into the multi sectoral decisions of health, education and water and sanitation. It emphasises the importance of participatory and consultative approaches to decision-making and implementation of the projects at the local levels but also looks at the long term implications of population growth.

### 8.2 Results of the analysis

The main direct environmental outcomes of the initiative are: school buildings, sanitation facilities, water points, health centre, school benches, scholastic materials, grinding mills, various trainings, and training in environmental health, community mobilisation. The indirect environmental outcomes include when people are aware about environmental issues and take up responsibilities as individuals or in their organisation. A foreseeable problem in the towns is waste management. It is already a huge problem and the effects are noticeable in growing towns such as Juba and Torit. Overgrazing is an issue too but these are not caused by the implementation of the BSF. However the success of the BSF in providing water, health and education attracts people to the project areas can in turn lead to pressures on the environment. However this is not a very significant negative environmental impact at the moment.

### 8.3 Ranking the Environmental Effects

Table 4 The Positive Negative and neutral impacts of the BSF

Positive, Adverse And Neutral Environmental Effects	Environmental impacts		
	+ve	-ve	+/-
<ul style="list-style-type: none"> <li><b>Environmental Screening Note (ESN)</b> ESN helps project officers are aware of the environmental impacts as they undertake Environmental screening of the project. The ESNs provide links to good practice examples prepared for similar interventions and relevant guidance documents and checklists. This will have a positive environmental effect. However a common form could assist to document the information and facilitate fast screening see annex</li> </ul>	4		
<ul style="list-style-type: none"> <li><b>Reviewing of Environmental information in proposals</b> Include capacity the steering committee or undertake an environmental peer review of project proposals on environmental impacts. The proposed form could assist the EIA scoping.</li> </ul>	4		
<ul style="list-style-type: none"> <li><b>Execution of project activities</b> The project areas are vast land areas that are sparsely populated. There are neither “polluting” industries nor power plants. Little electricity is used. The main problem in many areas is the lack of energy, which is manifested, in cutting wood. As the populations grow as projected, this might precipitate negative impacts with regards to deforestation and unsustainable land use. So far the environmental impact is neutral. However this may increase exponentially with population growth.</li> </ul>			4
<ul style="list-style-type: none"> <li><b>International Environmental guidelines</b> The BSF uses WHO International guidelines on water, sanitation and hygiene. This sets the norms with regards to validating, monitoring and pursuing the proper implementation of norms and standards" in relation to water, sanitation and hygiene.</li> </ul>	4		

Positive, Adverse And Neutral Environmental Effects	Environmental impacts		
	+ve	-ve	+/-
This will have a positive environmental effect.			
<ul style="list-style-type: none"> <li><b>Institutional Structures</b></li> </ul> <p>Institutional Structures for an Effective, delivery of basic services and Accountable GOSS is only possible by providing training to build the capacity of front-line service providers such as teachers and health workers. This BSF activity will have a positive environmental effect given the currently limited capacity in government ministries to manage. However for the government to take over the management of basic services and secure the sustainability of the initiative, additional specialised and independent training centres must be built. This will have a positive environmental effect.</p>	4		
<ul style="list-style-type: none"> <li><b>Cost of construction</b></li> </ul> <p>The southern Sudan is one the most expensive places to work. For example a kilometre of asphalt road costs 1 million dollars. With maintenance budgets being uncertain, buildings have to be constructed in a very solid manner in order not to require extensive maintenance. This is important even if higher unit costs are unavoidable. Cheap construction techniques are not cost-efficient and could be prone to environmental calamities.</p>		4	4
<ul style="list-style-type: none"> <li><b>Project location</b></li> </ul> <p>Wide geographic coverage of activities means large underserved populations are receiving some sort of services (see coverage map) The BSF is contributing to an enabling rural environment in which local government and communities are involved in identifying and overseeing activities. The participatory approach that is being used by implementing NGO will have a positive environmental effect.</p>	4		
<ul style="list-style-type: none"> <li><b>Services delivery as part of town planning</b></li> </ul> <p>The transfer of the directorate of Environment from the Ministry of Ministry for Environment and Protection of Wildlife to The Ministry of Housing, Physical Planning And Environment will mean that the BSF building activities will be embedded in the “Strategic Participatory Town Planning” activity, which assists the GOSS in its efforts to respond effectively to returning populations and reintegration issues. Improved planning will help mitigate potential environmental impacts as returnees settle back in their towns and villages.</p>	4		
<ul style="list-style-type: none"> <li><b>Externalities and environmental education</b></li> </ul> <p>Though not part of its activity, the BSF is one of the important drivers calling to rehabilitate roads and bridges; this indirect need of the BSF for the construction of roads has the potential to cause significant adverse environmental impacts due to the lack of capacity in GoSS to undertake EIA on infrastructure projects.</p>		4	
<ul style="list-style-type: none"> <li><b>Environmental education</b></li> </ul> <p>As long as there is poverty, there is a percentage of the population that, no matter what incentives/disincentives are given, will not see the environment as a priority. They have no choice but to use the cheapest energy options, for example, which are usually the most environmentally harmful (ex: charcoal). The educational and training initiatives on the environment that the implementing NGOs are making part of their curriculum including plans to plant trees etc will put facilitate people to better able to make the proper decisions.</p>	4		
<ul style="list-style-type: none"> <li><b>CPA implementation</b></li> </ul> <p>The slow implementation of the CPA and the lack of economic and social progress could result in discontent and tension. Resolving core issues such as access to water resources, health services and primary education could reduce this. This is likely to have a positive effect since uncertainty of government effectiveness could make populations’ susceptible unrest and conflict.</p>	4		
<ul style="list-style-type: none"> <li><b>Storage of harmful substances</b></li> </ul> <p>Health initiatives may include promoting the use of insecticide-treated nets (ITNs) and HIV/AIDS prevention. These can result in risks to human health and the environment if not used and disposed of properly. If nets are treated on-site, then insecticide use, storage and disposal are a concern for human health and the environment.</p>		4	

Recommendations to mitigate these potential effects can be found in Section 10.

#### ***8.4 Other funding mechanisms***

Several reviews have been commissioned looking at the main aid instruments that are being used in Southern Sudan including the Multi-Donor Trust Fund; the Common Humanitarian Fund; the DFID Basic Services Fund, the European Union Recovery and Rehabilitation Programme (EU-RRP), the Strategic Partnership, and bilateral arrangements.<sup>v</sup> These were triggered by the slow pace of implementation and perhaps due to the fact that the funding mechanisms are not delivering results on the ground quickly enough to meet the huge needs and expectations of Southern Sudanese. Failure to address this ‘recovery gap’ through the delivery of basic services and other expected ‘peace dividends’ poses a serious risk to CPA implementation and thus peace and stability throughout Sudan.

In comparison to other mechanisms, Wendy Fenton<sup>vi</sup> undertook an assessment of the funding mechanisms in February 2008. The mechanisms that were assessed included:

- The Common Humanitarian Fund, managed by UNDP and the Multi Donor Trust Fund-Southern Sudan administered by the World Bank.<sup>vii</sup>
- The Strategic Partnership Framework (UNDP);
- The Global Fund (UNDP), the EU-RRP (UNDP), The Basic Services Fund (Dfid);
- The Capacity Building Trust Fund, administered by UNICEF and KPMG,
- Sudan Recovery Fund (SRF).

The conclusions are as follows: the instruments that appear to be working well in supporting recovery needs are either bilateral funds implemented through NGOs -such as the EC Humanitarian Plus Programme, the Dfid Basic Services Fund and the EU Recovery and Rehabilitation Programme - or fast and flexible pooled funds like the Capacity Building Trust Fund, managed by UNICEF and KPMG. NGO experience of UNDP-managed pooled funds has been mixed at best (the Common Humanitarian Fund (CHF)) and extremely negative at worst (Global Fund and SPA). More worrying still is the increasing donor propensity to channel pooled funding through UNDP – regardless of previous performance. The recommendation is to keep what is working and focus on the following:

- Prioritize strengthening and expanding existing funds that have delivered results - EU Recovery and Reconstruction Programme, Basic Services Fund, Capacity Building Trust Fund (CBTF) and the CHF.
- Maintain the Office of Foreign Disaster Assistance (OFDA) and the European Commission Humanitarian Organization (ECHO) support for basic services until other funding sources and/or the GoSS takes over.

As highlighted above, the BSF has proven to be a relatively effective bridge between relief and developmental approaches to service provision. While more needs to be done in the next phase of the programme to strengthen GoSS engagement (particularly at the local level), the programme could be encouraged to take the step towards building government capacity in a more systematic manner.

In the medium term, it is likely that non-state actors will have to deliver a large proportion of services in Southern Sudan, despite the progress being made with building the capacity

The NGOs could also hinder the speedy progress beyond the provision of services through individual projects. While NGOs have been instrumental in the Southern Sudan allowing humanitarian assistance to reach the needy population in the rebels (Sudan People’s Liberation Movement (SPLM)) held areas they have been conditioned by ‘neutrality’ and ‘relief rather than development’ discourse in the context of ‘complex emergency’. The end result is that the indigenous and local structures in the south have been supplanted by an exclusive parallel and unaccountable system established by the international agencies

(Duffield, 1993:132). This is the environment and system in which the current BSF initiative is operating

There is a concern that the design of the next phase of funding mechanism could be influenced and therefore developed to suit international NGOs. There are already remarks about the mechanisms favouring INGOs over local NGO.

The BSF approach with the modifications recommended in the project memorandum and links to other mechanisms would be an effective way to deliver basic services in the medium term. In the longer-term though there is need to improve GoSS’s quality of engagement in service provision and a better assessment of environmental impacts at the project level.

Issues around fund designs and implementation as well as the combined impact of these instruments have also been examined. Reviewers have noted that meeting the complex mix of humanitarian, recovery and development needs while simultaneously supporting the establishment and building the capacity of a new government has been particularly challenging and has resulted in important and controversial tradeoffs.

Much time is spent between the BSF secretariat and GoSS officials in BSF Steering Committee meetings and following up on contract and administrative issues. The strategic potential of the fund to feed into policy and practice has not yet been realized, and GoSS ownership is lacking<sup>viii</sup>.

### ***8.5 The Significance of the Potential Environmental Effects***

The BSF is commitment to ensuring that its activities avoid negative impacts on the environment. Programme managers are expected to undertake environmental screening and analysis in project design, delivery and monitoring. In reality it is not easy to put mainstreaming into practice.

However there is scope to have a common and simplified BSF questionnaire sheet, as it may be cumbersome for individual project managers to go through several literature and guidelines of good practice (see example Annex 1 questionnaire environmental impact assessment of new construction activity). The checklist relates to documents that the government should provide and these would help in the anticipation of potential environmental impacts by the local authorities.

The significance of the environmental effects is also an analysis of risk. To determine the significance of the environmental effects, the following criteria were used:

Table 5 Assessment of the Significance of impacts

<b>Example of a Summary Table of the Assessment of the Significance of the Potential Environmental Effects</b>		
<b>Criteria to assess “Significance”</b>	<b>Rationale</b>	<b>Significance</b>
Construction design and appropriate technology	Capacity of the environment or institutions to respond to the effects resulting directly or indirectly from the initiative;	Medium
Site selection	Likelihood of the environmental effects occurring (positive or negative);	low
Local resource use and abstraction	Identifying the potential for cumulative effects (e.g. unsustainable demand for water from access points); and	Medium
Sustainability	Level of public concern about the policy, plan, or program proposal.	High
Waste management	Compliance or conformity with best practice tools, guidelines, environmental laws and regulations or international codes and standards, norms for compliance);	Medium

Primary responsibility for provision and operation of schools lies with the Secretariat for Education. The town councils ensure availability of sites in appropriate locations for all categories of schools, and infrastructure services.

## **9.0 STAKEHOLDERS AND PUBLIC CONCERNS**

Water supply was stated as being amongst the highest priority for improvement in the states. It is also linked to public health and disease, as well as general hygiene and food preparation. Many officials see Education as being critical for the future generations. Although primary education is a main focus of policy, secondary and technical education including finding and training good teachers is a concern.

## **10.0 MITIGATION AND ENHANCEMENT MEASURES, AND OTHER PREFERRED OPTIONS**

Most individual BSF projects have interesting approaches and experiences in delivering their services, addressing negative impacts and enhancing the positive ones. In terms of monitoring, experiences from the projects are documented in reports. These are mainly shared with donors, and in the case of Caritas the reports are subject of meetings with other partner agencies operating in the same counties. The next initiative launched by the implementing NGOs is peer reviewing each other projects. This will increase the sharing experiences and assure transparency and accountability. The process could be used to systematically examine the potential for environmental impacts by pointing out what the monitoring teams should look out for in terms of environmental impacts and process indicators. This initiative could be facilitated by a common database with comparable information that is being gathered by the implementing NGO. An example of a form with EIA related questions could facilitate the process. (See Annex for a draft Questionnaire prepared for the BSF activities)

In a situation like the Southern Sudan, in which the provision of maintenance budgets is uncertain, the health centers and school buildings have to be constructed in a very solid manner in order not to require extensive maintenance. This is important even if higher unit costs are unavoidable. Cheap construction techniques are not cost-efficient.

Technology is a vital component in the matrix of solutions to reduce negative environmental impacts. The assumption that new technology would simply appear at the right time and at the right price is simply false<sup>ix</sup>. Governments and development partners should be expected to play a direct role in supporting the development and the diffusion of technologies that support environmental sustainability. Below are some technologies that could be encouraged within the context of the BSF.

### ***10.1 Environmental Technology***

#### **Gravity technology**

The typical layout of a gravity-fed water system is a simple and sustainable concept. Gravity flow water system has successfully managed to provide continuous water supply. In gravity flow, water from a spring or a well on a higher altitude flows to a village or school overhead water tank, using the principles of gravity from where it is again distributed through pipes to the households. Every component between the water source and the reservoir takes account of the pipeline route survey, water resource planning and pipeline design and construction. Only in the absence of appropriate water source, or when it is not possible to construct a gravity fed water system, boreholes are drilled (i.e. in schools). The use of environmentally friendly technologies such gravity systems and roof catchments are used to construct water points. Only one such system has been constructed in 2008.

#### **Solar driven water pumps**

A solar water pump is a technology that can save time and can be used for a number of innovative applications. It is well suited for remote areas. When the cost of running

traditional water piping is high, a solar water pump may be the right solution. Solar water pumps can be used for pumping water for livestock, crop irrigation and simple domestic water supply where a home or town is remote and off the water pipeline.

### **Building materials**

In the construction of schools and health centres, neither wood nor burnt bricks are used in some projects. There are efforts by all project implementers to use environmentally friendly building materials. However the use of simple technologies is not common. The currently available technologies for building materials also happen to be low cost and come in a number of forms. Some use innovative composite materials based on local resources from forestry, agriculture, natural fibres, plant materials, and other resources such as agricultural and industrial wastes. Bamboo is another material grown widely in developing countries for which new technologies have been developed to overcome problems formerly caused by moisture and insects. The availability of, and ability to use, primary raw materials such as sand, rocks, etc., could diminish dependence on conventional materials and products for the construction sector.

The construction of latrines together with hygiene education also contributes to an environmentally friendly environment. There are guidelines for building latrines and boreholes to avoid contamination of drinking water.

The overall level of risk of the BSF initiative is judged to be neutral to positive, since the project and its management agent have already demonstrated their effectiveness in delivering the first phase of the BSF.

## **11.0 FOLLOW-UP**

Monitoring of the state of the environment, and the impact of activities on the environment is currently Insufficient or non-existent. Monitoring covers a range of parameters and as such should ideally be undertaken using a variety of Mechanisms. For the BSF, environmental monitoring should assess the environmental health of the natural and physical resources that the BSF is managing. It is essential to detect any change in the resources; this will indicate to what extent the Plan is achieving anticipated environmental results. The emergence of new issues can also be identified through monitoring. Depending on the resources that are being monitored, information will be collected raising the need to keep records in a user-friendly database. Monitoring will also include people and associated social, economic and cultural conditions and even more important duties and authorities. While the BSF secretariat has management, evaluation and reporting processes in place these could be enhanced to include the monitoring and reporting on environmental performance.

The monitoring of mitigation measures calls for a responsible body within GoSS. Such an agency although talked about, is lacking in southern Sudan. The directorate of Environment could in the short term be supported to implement the findings of the SEA and EIAs and supervise their implementation. In the longer term, CIDA could provide the expertise to set up a Regional Environment Agency. The BSF secretariat could outline how it intends to follow-up on these and what capacities, resources and institutional arrangements will be needed.

## **12.0 CONCLUSIONS**

The overall level of negative environmental impacts of the BSF risk is judged to be not significant, The initiative and its management agents have already demonstrated their effectiveness in delivering services in the first phase of the BSF and have drawn lessons that have been taken up in the second phase of the initiative. In some cases where concerns were raised in for example waste management there is little the BSF initiative in its current form can do to mitigate these risks, however it is crucial that they are closely tracked and that the BSF responds accordingly.

The other major concern is the lack of capacity and skills at all levels of government. Given this limited capacity of the state, non-state actors will in the medium-term continue to play a key role in delivering basic services. The BSF's approach to financing non-state delivery of services will continue to play a central role in ensuring the expansion and improvement of basic services in Southern Sudan. The initiative has full support of key officials and cabinet Ministers who were involved in the JAM process and the development of the BSF.

In order to be able to manage, deliver and account for the range of critical programmes needed to accelerate development in the region, the entire public service, including personnel and systems, needs to be built. Ideally the master plan should be based on delivery systems, structures and capacity needs. However these are lacking at all levels of government. This means that programmes that focus on training are crucial to the realization of the stated public policy goals and development objectives. The southern Sudan, I would argue, needs a robust 25 years capacity building master plan.

### **Critical role of the GoSS**

To date the GOSS have not undertaken an SEA of any of its plans, programmes, or strategies. A sustainable provision of services would require people's participation at all levels of the project cycle. The GOSS should be enabled and equipped to take a leading role in providing resources to support organizations in order to foster the framework of grassroots institutions such as community village organizations and their clusters that will enable communities and state officials to be responsible and accountable for their direction. However the GoSS bureaucracy clearly lacks the capacity to implement many of the recommendations of the JAM and the BSF initiative: these policies, however well intentioned, will not be implemented in an effective manner. The role of bureaucracy is therefore critical to all areas of the development process in Southern Sudan. The sustainability of the BSF and this applies to other funding mechanism will depend on the human and structural factors that are necessary for the administrative machinery, personnel of government at the regional, state and local levels and the body of rules and regulations that govern their behaviour from rendering efficient and effective basic service delivery but also more importantly for the GoSS to systematically take up the operational costs of delivering basic services including salaries of education and health personnel, running costs of schools and health centres, and material supplies such as textbooks and drugs.

### **Use of environmental technology**

The development of low cost environmentally friendly building materials is not just an issue for developed countries. While the implementing NGOs are aware of environmental technologies they are currently not actively pursuing these alternatives. One of the main reasons is the lack of capacity within the current group of implementing NGOs to actively address technology related mitigation options.

### **Cumulative effects**

Project or programme activities do set in motion a chain of events that each modifies the state of the environment and its quality. For example the mere presence of 30 international NGOs and their international staff has an impact on the physical environment. Although not related to project activities these impacts and the impacts of the BSF operations have significant effects on the environment, possibly modifying the entire system in previously remote areas or affects land values, working cultures, recreational habits, and the local economy. These various factors are interrelated, so that the net result is difficult to predict. However the more important effect is the long-term blueprint that the management style and working culture that INGO will leave behind. It is therefore important to capture cumulative and the long-term impacts for consideration.

### **Inclusive funding mechanism**

The NGOs could also hinder the speedy progress beyond the provision of services through individual projects. While NGOs have been instrumental in the Southern Sudan allowing humanitarian assistance to reach the needy population in the rebel (Sudan People's Liberation Movement (SPLM)) held areas, they have been conditioned by 'neutrality' and 'relief rather than development' discourse. The system of services provision that emerged in the Southern Sudan has been established by the international agencies (Duffield, 1993:132). This is the environment and system in which the current BSF initiative is operating. Environments in which some government officials do not know how to relate to and to effectively support the initiative.

There is a concern that the design of the next phase of funding mechanism could be influenced and therefore designed to suit INGOs. Local community organizers build the social networks and train the community leaders needed for sustainable change. Supporting the backbone of social transformation through the provision of basic services could be achieved by supporting community organizers who are pivotal in the process of building a lasting foundation for change. There are already remarks about the BSF favouring international NGOs over local ones. In addition, although a private consultancy (BMB Mott MacDonald) is managing the BSF secretariat, the private sector could be encouraged to provide services.

### **Systems approach to services delivery**

A successful delivery of basic services depends on a comprehensive system that address access, encourages community-based health care provision, coordinates primary medical care with referral health care, educates the public, provides trains skilled personnel, undertakes program/project evaluation and provides incentives for programs that demonstrate measurable improvement and links health care services providers with public health departments.

### **Filling the holes and the gaps**

In post conflict situations and indeed in many least developing countries, there are problems that could be characterised as the holes and others as gaps. The holes are enabling policies and mechanisms for the private sector and other development agents to build on the competitiveness of the region to deliver products and services and create jobs. For example, the lack of skills and expertise in services delivery and in other areas of economic development, may simply mean that simplifying visa regulations for short term employment and the registration of for-profit and not-for-profit actors, which render services, establishing better connections between areas, providing infrastructure - including communication infrastructure and setting up national training programs is part of addressing the big hole. Other big issues for the government include stimulating key economic activities through recovery programmes and projects, designing tax systems, tariffs, and special investment incentives.

The gaps are what the BSF works to address by ensuring that basic services are delivered to the people of Southern Sudan who otherwise will not be reached by the government or unable to access health and education services because of they are in remote regions that could not be attended to. These groups will always exist in one form or the other and a mechanism like the BSF will always be needed to reach these communities. That said, given the enormous challenges of providing health, education, clean water and sanitation to 12 million people, too much should not be expected from the BSF. Nevertheless, the BSF will be strengthened when the structural problems of governance, personnel qualifications, organisational structure, personnel regulations, and work environment are addressed.

The BSF has proven to be a relatively effective bridge between relief and developmental approaches to service provision. Senior GoSS officials and Ministers who were involved in the JAM report and the concept of the BSF would like to see the initiative continue as long as there is no viable functioning alternative. It is likely that non-state actors will still play a

dominant role in the medium term in delivering services to the remote regions of Southern Sudan, despite the progress that the BSF is making with building the capacity of Southern Sudanese.

### 13.0 RECOMMENDATIONS

#### 13.1 *Recommendations for the short term*

1. **Assign Indicators:** The additional use of a select number of process indicators could be used as a tool for monitoring and evaluating the reinforcement of capacity building efforts. The indicators for monitoring environmental impacts are project specific and could be derived from the questionnaire below (see Annex 1). The other indicators that are related to capacity building are:
  - a. Collaboration/partnerships with local organisations;
  - b. Amount earmarked for capacity building;
  - c. Staff time dedicated to capacity building
  - d. Government involvement in designing strategies, benchmarks and monitoring and evaluation activities;
  - e. Community involvement in designing activities, benchmarks and monitoring and evaluation activities.
2. Develop a **compendium of environmental technologies** for basic services delivery to equip the BSF project managers with options and technology based solutions;
3. Develop a **BSF Electronic Database** to store and share social indicators, lessons learned, impacts; best practice guidelines and progress. The management of a funding mechanism for basic Services with activities being implemented in a vast and diverse region like the southern Sudan requires sophisticated, timely, and accurate information. Much of this information is statistical or quantitative in nature. Such data include financial, socio-economic, demographic, environmental, and other variables specific to the States. The database can be maintained on a website for ready access by users in a format that permits both easy retrieval of information by users as well as updating the empirical data as needed. The purpose of the Database is to improve the efficiency of strategic plans for the initiative and the development of policies to set practical targets. It will also help with the evaluating the impacts of policy and planning decisions and assessment of local environmental impacts. This would be a step in building up a repository and dissemination centre in basic services delivery and Environmental impacts. By combining modern technologies of processing, storage, retrieval and dissemination of information of environmental nature with the questionnaire on impact assessment, the database would provide regional environmental information
4. **Central procurement within the BSF secretariat:** Consider capacity with the BSF secretariat specialised in procurement for the BSF implementing partners. The objective is to lower the cost of construction and freight. In most poor countries and regions like the Southern Sudan in which the provision of maintenance budgets is uncertain, buildings have to be constructed in a very solid manner in order not to require extensive maintenance. This is important even if higher unit costs are unavoidable. Cheap construction techniques are not cost-efficient.
5. Undertake a scoping of the proposals of BSF implementing NGOs to identify and to determine the range of possible impacts and potentially significant issues to be analyzed in depth and eliminate those issues that are not significant. The outcome of the scoping process will be used to assign specific environmental indicators to each BSF project and to inform the CIDA on whether or not to undertake EIA of specific BSF projects.

6. Devise an active role for the GoSS in monitoring the quality of water and sanitation and in developing strategies and national policies to encourage the use of environmental technologies. Welcome the GoSS department of science and technology along with the Ministry of Cooperatives and Rural Development (MCRD) to the BSF steering committee to play an active role in not only selecting projects, but also in overseeing and evaluating them. In the same vein, the Ministry of Cooperatives and Rural Development could monitor the quality of water and sanitation;
7. **Environmental technologies:** The next phase of the BSF could encourage technology solutions and assist the GOSS to adapt strategies and national policy and institutional infrastructures to support increased utilisation of locally available resources for manufacturing construction materials. Encourage technology solutions and assist the GOSS to adapt strategies and national policy and institutional infrastructures to support increased utilisation of locally available resources for manufacturing construction materials.
8. **BSF Electronic Database of baseline information:** There are signs indicating that the Sudan Household Health Survey (SHHS) could become a one off exercise. The BSF and the GOSS could be assisted to develop a database to store and share valuable information including social indicators, lessons learned, impacts, best practice guidelines, etc. It would be easier for the BSF and other aid instruments to understand and address social inclusion and poverty dynamics in the presence of data. The information that is currently being generated by the NGOs should therefore not be lost. The BSF and the GOSS could be assisted to develop a mechanism for sharing these valuable information such as lessons learned, impacts; “government” best practice guidelines and EIA findings. The BSF could fund a web based electronic database in which the implementing partners could input their data and relevant information.
9. **Project Development:** While more needs to be done in the next phase of the programme to strengthen GoSS engagement (particularly at the local level), the BSF programme could be encouraged to take the step towards building government capacity in a more systematic manner. CIDA and/or other donors could:
  - a. setup and develop capacity in GoSS of a unit dedicated to the preparation of project proposals on behalf of the government in order to access funding from the various mechanisms, and
  - b. provide peer review on projects submitted by third parties to access funds or to collaborate with GoSS.
10. A staff member (environment officer) could be seconded to the BSF secretariat from the department of the environment, Ministry of Housing, Physical Planning and Environment to monitor environmental indicators and document project level impacts.

### ***13.2 Recommendations for the medium term***

**A specialised training initiative to support capacity building for the BSF:** Capacity building not only enhances project/program implementation in the short-term, but could also provide skills to individuals, the providers of basic services and to the GoSS’s long-term efforts. Capacity building should therefore be an integral part of the BSF program. At the same time, organizations supporting implementation programs must ensure that capacity building activities be incorporated into project implementation support.

11. CIDA or other donors, with support of the Capacity Building Trust Fund (CBTF), could build the professional and management capacities of large numbers of southern Sudanese by engaging with the university of Juba and other technical schools to provide

short-term courses in project development, financial accounting, budgeting, project evaluation and management and on the technical aspects of services delivery. Such a project, specifically targeting skills development for the BSF, could provide a pool of capacities within 2-6 months that both the government and NGOs could recruit from. Some of the participants could be recruited and referred to this new institution by the implementing NGOs. The (international) staff of the NGOs could be trainers and share their practical problem solving skills and best practices with participants. Such a project would also build the capacity of the university and other educational institutions, making them a relevant provider of skills. In addition, such a system has a better chance of sustainability and could evolve to meet other short-term needs, including the needs of the new funding mechanisms. Topics could include: public sector management, public policy formulation, leadership and decision-making, town planning and land administration, public finance, budgeting and accounting, the rule of law, gender and development, and human resources management. Students and government officials alike could attend the courses. The exit strategy could envision the institutions evolving into a programme of the University of Juba or a stand-alone institute for public management.

### ***13.3 Recommendations for future consideration***

12. From policies to systems: CIDA and GoSS could design and put in place a comprehensive delivery system for health, education, water and sanitation in which the different levels of government including the profit and not for profit organisations could participate in the different aspects of the system. CIDA could, either through the BSF or bilaterally, assist the government to develop a comprehensive system of services delivery to assist regional and local governments to create sustainable systems of services (health, education, water and Sanitation) delivery. The for-profit and not-for-profit organisations could bring to the system their specific technical expertise.
13. Building capacities of community organizations: CIDA could provide bilateral funding to BSF implementing INGOs to specifically build the capacity of community organizations and leaders to take over spin-offs or some aspects of the services provision instead of waiting for the local government to be ready to assume its responsibilities. In the short term, the Qualification Information for bids could be designed to take into consideration requirements for environmental requirements and capacity building of communities and local authorities and sustainability considerations during the eventual transfer of responsibility to government.
14. Develop a strategy framework and management system in the South Sudan in collaboration and consultation with and Ministry of Health (MoH)/Government of South Sudan (GoSS), UNICEF, State Ministries of Physical Infrastructure and Partners in Water, and Hygiene sector;
15. Enhancing for-profit and not-for-profit: The funding mechanisms including the BSF should actively support/encourage the partnerships of for-profit and not-for-profit actors by providing access to long-term financing opportunities.

# **Annex I: Proposed questionnaire for the environmental impact assessment of BSF projects**

## **Purpose of the questionnaire**

Environmental information is important to monitor and conduct environmental assessments. This questionnaire could assist to collect and store environmental information relevant to BSF operations. When linked to a database it would improve accessibility to environmental data and facilitate Environmental monitoring and management. The information will be site specific and therefore helpful in the preparation of Environmental Impact Assessments. It would also help to identify project specific environmental indicators for monitoring purposes. The BSF acquired data could become a one-stop source of quality environmental data for basic services operations. In the long-term, the data can be used for project planning, site selection, feasibility studies, project screening and scoping.

## **I. BACKGROUND INFORMATION OF THE PROPOSED PROJECT**

Name of the agency proposing the new construction project

State clearly the objective of the project:

Location of the project

Estimated cost of the project

Type of project:

- Building hospitals
- Schools
- Drilling boreholes,
- Waste dumpsite
- Others

## **II. DISCRIBE SITUATION WITHIN 10 KM RADIUS FROM PROJECT SITE**

- General topography
- Specify general features of land
  - Tree cover-prominent species
  - Fauna-wildlife/domesticated
  - Avifauna
  - Soil characteristics
  - Natural drainage pattern
  - Flood prone areas

Existing land use (to include agricultural & non-agricultural uses, commercial, dense/open forests, fallow land, human settlements, water bodies, transport systems etc.)

Predominant activities

- Specific environmental problems, if any (such as water pollution, land spoliation by natural & manmade factors, endemic diseases, loss of tree cover, open spaces etc.)
- Human Resources
  - a. Population of study area (10 km radius)

- b. Decadal growth rate, settlement pattern and growth
- c. Socio-economic conditions
- d. Health: Endemic diseases, Mortality, Epidemics

Environmental assessment and suitability of the proposed development (specifically identifying the limits)

### **III. PROMINENT FEATURES WITHIN ABOUT 100 METRES RADIUS FROM THE SITE BOUNDARY (LOCAL AND IMMEDIATE VICINITY)**

- General description
- Natural resources

#### **i. Water:**

Ground water table, rate of recharges present restrictions on withdrawal, available yield, quality of water (physical, chemical, biological)

Surface water location, source and yield, present use (for agriculture, human consumption, industry, etc.)

#### **ii. Energy**

Consumption pattern for hydrocarbons, electricity and any other non-conventional energy source

- Details of new construction

Building materials for construction (may cover the quantities, source, processes involved, special attributes such as life cycle costs, efforts towards greening the supply chain)

- Details of public utilities required for the project:

#### **i. Water supply:**

- Source of water supply and quantities to be drawn.
- Type of treatment, if any.
- Continuous/Intermittent supply
- Storage capacity

#### **ii. Sewage, Collection, Treatment & Disposal**

##### **a. Mode of collection of domestic effluent**

- Surface drains
- Underground
- System and capacity

##### **b. Mode of treatment**

- Septic tank and filters (capacity)
- Biological treatment capacity & other details

b. Mode of disposal

- Soak pits / Disposal to local sewer / water bodies (specify)
- Use for cultivation

iv. Solid Wastes:

- Estimated quantity of each types of solid waste:
- Mode of collection and disposal:
- Recycling to be instituted, if any:

v. Power System:

- Sources of power and supply capacity
- Distribution System
- Alternate supply for essential services
- Type of fuel used and capacity

vi. Impact of the new development on the surrounding areas

- Provision of service roads
- Buffer zone planned, if so, details
- Activities likely to come up in the surrounding areas from the project during construction & operation phases
- Agencies and the measures proposed to regulate unplanned developments like slums, shops, etc.

State briefly impacts predicted on the quality and quantity of natural resources from the proposed new development:

- Air quality
- Vegetation
- Animal/Aquatic life
- Surface/ Ground Water

· State briefly impacts predicted on the quality and quantity of manmade features from the proposed new development:

- Transport Linkages:
- Road
- Water
- Air
- Others

vii. Ecologically sensitive areas

· Landscaping /Tree Plantation

- i. Numbers and types of trees to be planted inside & outside the plot:
- ii. Other special features of proposed landscape design
- iii. Likely impacts from proposed landscaping

viii. Any other relevant information of environmental significance-such as Timber-free construction, Greening of supply chain, use of Solar and other renewable energy sources etc.

## CHECKLIST OF RELEVANT DOCUMENTS

Building approvals from local authority

- Land use/Zoning particulars-relevant portions from the prevailing local Regulations
- Landscape plans with proposed tree plantation
- Rainwater harvesting plan
- Sewage treatment plant-details with a write-up
- Water balance statement
- Cost estimates inclusive of land cost
- Fire protection measures & approvals obtained
- Incorporation of points raised in public hearing
- Approval of competent authorities in case of conversion of agricultural land, change of land use,
- Construction schedule
- Statement on the machinery & manpower during construction
- Approvals if applicable on ecologically sensitive areas, development regulations,
- Solid waste collection /disposal plan
- Water drainage
- Comprehensive listing of building materials for construction

## Annex II: Assessment questionnaire distributed to partners

### Purpose

The purpose is to conduct a Strategic Environmental Assessment (SEA) of the second phase of the Basic Services Fund, to identify the positive and negative environmental effects that could arise from this initiative and to make related recommendations to CIDA and Dfid.

Strategic environmental assessment is the systematic and comprehensive process of evaluating the environmental effects of a policy, plan, or program and its alternatives. SEAs need not be environment-led. Improving environmental governance, identifying areas for regulation, capacity building to rectify the structural causes of health related problems are part of the environmental impacts. The SEA process involves the answering of a series of questions during the development of the policy, plan or program proposal to identify any potential negative impacts of the proposals to be mitigated and potential positive impacts to be enhanced.

<b>Project Outcomes and the Environment</b>
<i>What are the direct and indirect outcomes associated with implementing your programme and how do these outcomes interact with the environment?</i>
<i>How does your project contribute to the overall advancement of the country's priority for environment?</i>
<i>Describe the current state of the environment. What is the scope and nature of these environmental interactions?</i>
<i>What lessons have been learned and what plans and or practices are in place to undertake environmental assessment.</i>
<b>Stakeholders and Public Concerns</b>
<i>What are your concerns about environmental effects and how it has been/need to be addressed?</i>
<b>Mitigation and Enhancement Measures, and Other Preferred Options</b>
<i>List environmental protection objectives of your programme/project</i>

*Describe what are the proposed measures to mitigate important adverse effects and to enhance the project from an environmental sustainability perspective.*

*Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the plan (e.g. in construction, waste management, environmental health, etc)?*

*Are this safeguards sufficient/adequate to ensure that the environmental effects of specific undertakings are systematically examined and mitigated*

*What could be the important adverse environmental effects if no action is taken: (describe the likely significant effects on the environment (biodiversity, human health, fauna, etc. see for additional guidance below)*

**Indicators**

*Suggest a number of indicators to monitor the environmental performance of your project.*

**Recommendations**

*Describe what follow-up/monitoring will be done to monitor the implementation of recommendations and measure progress and results.*

**Any Additional Observations and Remarks**

## Annex III: Contact list of implementing NGOs

Names, Positions and email addresses of partner's senior management and finance staff in South Sudan and HQ

1.1 AMREF	1.2 CARITAS	1.3 CCM
Steve GIKUNDA (acting) smgikunda@yahoo.com NGATIA, Peter petern@amrefhq.org KIPLANGAT, Yator <a href="mailto:kiplangatyator@yahoo.com">kiplangatyator@yahoo.com</a> ODERA, Pamela <a href="mailto:pamelao@amrefhq.org">pamelao@amrefhq.org</a> Dr John MWESIGWA (Tali temp.)  Pascal OYAGA (pascal.ogaya@amref.org) Michael OGAMBI (ogambi@gmail.com)	BLOCH, Marc mbloch@caritas-switzerland.org  OCHIENG, Oscar oochieng@caritas-switzerland.org  DEN TOOM, Ari anjaari@hotmail.com  Gamal NYARA (gnyaragi@caritas-switzerland.org)	Timothy <a href="mailto:koemal@yahoo.com">koemal@yahoo.com</a> MEROLLE, Ada (official) <a href="mailto:medco@ccm-italy.org">medco@ccm-italy.org</a>  Serena BOSSI (serena.bossi@ccm-italy.org)  <a href="mailto:admin@ccm-italy.org">admin@ccm-italy.org</a> <a href="mailto:accountant@ccm-italy.org">accountant@ccm-italy.org</a>
1.4 MEDAIR	1.5 OXFAM	1.6 SC-US
John PRIMROSE cd-southsudan@medair.org  WOODS, Francis <a href="mailto:programmes-southsudan@medair.org">programmes-southsudan@medair.org</a>  ZULAUF, Lisa <a href="mailto:lisa.zulauf@medair.org">lisa.zulauf@medair.org</a>	Nigel Yong <a href="mailto:nyoung@oxfam.org.uk">nyoung@oxfam.org.uk</a> Leo Roozendaal lroozendaal@oxfam.org.uk Elisha Juma <a href="mailto:ejuma@oxfam.org.uk">ejuma@oxfam.org.uk</a>  Arwa Mohammed  amohammed@oxfam.org.uk  shafeeq REHMAN <a href="mailto:srehman@oxfam.org.uk">srehman@oxfam.org.uk</a>  GAR BUTT, Ben (bgarbutt@oxfam.org.uk)	WATSON, Mattito <a href="mailto:mwatson@savechildren.org">mwatson@savechildren.org</a> deputy CD=Elen WHITE <a href="mailto:ewhite@savechildren.org">ewhite@savechildren.org</a> GITHINJI, Tim <a href="mailto:tgithinji@savechildren.or.ke">tgithinji@savechildren.or.ke</a> tgithinji@yahoo.com SC_Sweden: GOVEDI,Kennedy:kennedy.govedi@swedesave-ke.org SC-Swden:Hans LIND:  MCLAURIN, Kenneth <a href="mailto:kenneth.mclaurin.stc@gmail.com">kenneth.mclaurin.stc@gmail.com</a> Andrea WILLIAMSON-HUGHES awilliam@savechildren.org Sahron HAUSER
2.1 GOAL	2.2 HASS	2.3 IRC
McMANUS, Frank cd@goalsouthsudan.org  Paula HESKIN fc@goalsouthsudan.org  Nikki Maguire <a href="mailto:nmaguire@GOAL.IE">nmaguire@GOAL.IE</a>  John Moore <a href="mailto:jmoore@GOAL.IE">jmoore@GOAL.IE</a> ALVAREZ, Maite, (malvarez@goalsouthsudan.org)	ROPI ERASTO, Mary <a href="mailto:hass@africaonline.co.ke">hass@africaonline.co.ke</a> LOMOLE, Manase <a href="mailto:lomolewaya@gmail.com">lomolewaya@gmail.com</a>  NDOGOTO, Daniel <a href="mailto:hass@africaonline.co.ke">hass@africaonline.co.ke</a>	<a href="mailto:robert.warwick@theirc.org">robert.warwick@theirc.org</a> Robert WARWICK  Kate Foster (kate.foster@theirc.org) SERUNJOLI, Richard <a href="mailto:richard.serunjoli@theirc.org">richard.serunjoli@theirc.org</a>  OGELLO, Tom <a href="mailto:tom.ogello@theirc.org">tom.ogello@theirc.org</a>
2.4 MERLIN	2.5 OVCI	2.6 SC-UK
Manohar Shenoy <a href="mailto:ssudan.cd@merlin-eastafrika.org">ssudan.cd@merlin-eastafrika.org</a> OKELLO, James (torit.pc@merlin-southsudan.org)	Franca, CATTORINI <a href="mailto:francacattorini@yahoo.it">francacattorini@yahoo.it</a>	ALIDRI, Patience <a href="mailto:P.Aidri@savethechildren.org.sd">P.Aidri@savethechildren.org.sd</a>

**Names, Positions and email addresses of partner's senior management and finance staff in South Sudan and HQ**

Franco, FAVA  
francofava@gmail.com

HONGO, Felix  
[f.hongo@scuk.or.ke](mailto:f.hongo@scuk.or.ke)

CHAUDHRY, Zeeshan  
z.chaudhry@merlin.org.uk  
James OKELLO  
[torit.pc@merlin-southsudan.org](mailto:torit.pc@merlin-southsudan.org)

(assistant to Felix): Clement Kungu  
[c.kungu@scuk.or.ke](mailto:c.kungu@scuk.or.ke)  
DUBOVYK, Andriy  
[A.Dubovyk@savethechildren.org.sd](mailto:A.Dubovyk@savethechildren.org.sd)

Justin Derbyshire  
[justin.derbyshire@merlin.org.uk]

2.7 TEARFUND	2.8 WORLD RELIEF
BROWN, Serena dmt-southsudan-pd@tearfund.org	HINTON, Mark mhinton@wr.org

## Annex IV: Selected social indicators

### 1.0 MILLENNIUM DEVELOP GOALS

Improving health systems, environmental sanitation and conserving natural resources for sustainable development are part of the UN's Millennium Development Goals. In delivering basic services, progress toward meeting the MDGs is central to achieving growth and eventually sustaining the peace in Southern Sudan. The 2006 Sudan Household Health Survey (SHHS) is the first report after more than two decades of the protracted conflict in the Sudan and published after the signing of the Comprehensive Peace Agreement (CPA). The report covers to some extent both national and global indicators, such as the MDGs and other international initiatives. The Government of South Sudan (GoSS) have put strategic emphasis on addressing in a broader context several issues that include health, education, water and sanitation, agriculture, environment and child protection as an integral part of the national efforts to ensure progress towards the MDGs (Table 6).

Table 6. Meeting the MDGs in Sudan - Selected Challenges (1999/2000 unless indicated)

MDG 2: Education	South	Target 2015
Gross primary enrolment ratio	20%	‡ 100%
Percentage of cohort reaching grade	28% §	100%
Youth literacy rate (% ages 15-24)	31%	‡ 100%
Ratio girls to boys in primary education*	36%	100%
<b>MDG7: Environment</b>		
Access to an improved water source (% of population)	27%	64%
Access to improved sanitation (% of population)	15%	58%

Notes: •1990-01 +1994 \*2001 §2002 ‡1999-02.

Source Joint Assessment Mission (JAM), March 18, 2005

These needs will only be met with tangible improvements in local governments capacity and in other local organizations. Unlike in urban areas, meeting the MDGs, in rural areas may not depend on large increases in funding or national poverty reduction strategies but, rather, on the incremental local changes on which the achievement of most of the MDGs depend. The local government agencies, determine the performance of local schools, health care centres and water and sanitation providers all areas where many of the MDG targets evolve. And development initiatives must consult and work with “the urban poor” in devising locally appropriate solutions as part of a system with reasonable timelines.

For larger towns it is slightly different. There is a need for a comprehensive plan with resources identification. Even moving from 20 to 50 percent target is already a challenge. And when resources are available the challenge is attracting the private sector. NGO maybe filling the gap and build 50 school but may not be able to build 500 schools. On the other hand, Most African countries moved very quickly with the first decade of independence precisely because there was no bureaucracy to slow down major development initiatives.

### 2.0 THE INDICATORS OF HOUSEHOLD HEALTH SURVEY AND THE MDG

The Survey did generate over half of the Millennium Develop Goals (MDGs) indicators. See table 6. For indicators related to the BSF initiative.

A review of the BSF in January 2008 found that it had ‘increased Southern Sudan’s basic service infrastructure and human capacity rapidly and efficiently; filled a gap in the funding

of basic service operations and has the potential to contribute to GOSS basic service strategies and implementation capacities.’ The Indicators of Household Health Survey found that under-five mortality rates have fallen from 156 deaths per 1,000 live births prior to the signing of the Comprehensive Peace Agreement to 112.

The United Nations Children’s Fund (UNICEF), Pan Arab Project for Family Planning (PAPFAM), the World Food Programme (WFP), the United Nations Population Fund (UNFPA), the World Health Organization (WHO), the United States Agency for International Development (USAID) and the league of Arab States (LAS), provided the Financial and technical support for SHHS. The survey made available indicators and provided baseline information that is valuable for policy makers to monitor progress. There is no indication that a follow-up report is in the making. So far, the only documented evidence of progress towards the MDGs in South Sudan is being provided by the BSF initiative.

Table 7 Indicators of Household Health Survey

Topic	SHHS indicator number	MDG indicator number	Indicator	Value
WATER AND SANITATION				
<i>Water</i>	37	30	Use of improved drinking water sources	56.1 %
	38		Water treatment (all drinking water sources)	4.5 %
<i>Sanitation</i>	40	31	Use of sanitary means of excreta disposal	31.4 %
<i>Water and sanitation</i>	41		Use of both improved drinking water sources and sanitary means of excreta disposal	23.8 %
EDUCATION				
<i>Education</i>	42		Net intake rate in primary education	29.5 %
	43	6	Primary school net attendance rate	53.7 %
	44	9	Gender parity index (primary school)	0.93
	45		Secondary school net attendance rate	18.9 %
	46		Primary school attendance rate of children of secondary school age	35.5 %
	47	7	Children reaching grade five	90.3 %
	48	7b	Primary completion rate	19.4 %
	49		Transition rate to secondary school	64.5 %

Source: Household Health Survey (SHHS), 2006

## **Annex V: Status of basic services before the BSF**

The environmental effects and their importance of the BSF initiative can only be appreciated when the state of basic services before the project is understood. The assessment starts with an analysis of the status of health, education and water and sanitation as well as the physical, social, cultural and economic environment. This is intended to provide a basis for understanding the impacts and key issues for the improvement of basic services and environment.

### **1.0 HEALTH**

Up until 2005, communicable diseases were widespread and presented the most serious health problems. The major ailments include malaria, acute respiratory tract infections (ARI), and diarrhoea. Guinea Worm remains endemic, largely due to the ignorance of the population regarding potable water and inaccessibility to it. HIV/AIDS is predominant in areas where returnees and IDP converged. Some epidemiological conditions obtained by multiple cluster Indicator Survey (MICS)<sup>4</sup> are as follows in the target area:

- Infant mortality rate ranges from 70-100 per 1000 live births;
- Under 5 mortality is 100-150 per 1000 live births<sup>5</sup>.
- Maternal Mortality Rate has not been indicated but could be 1700 per 100,000 live births (as indicated in the MDG 2004 report, for South Sudan).
- In rural areas routine immunization campaigns have not been conducted for the last 25 years and there is no cold chain systems for vaccines. During the polio campaign this year, only 3,010 of 14,451 (21%) of targeted children aged less than 5 were immunized.<sup>6</sup>

### **2.0 WATER AND SANITATION**

Access to water and sanitation is especially limited in Southern Sudan. Rural safe water coverage is estimated at 25-30 percent; in Southern towns coverage is around 60 percent. The population per water point ranges from 1,000 to 64,000, and average water collection journeys in un-served areas are up to 8 hours. In Bahar El Jebel State, only 20% of the population in the rural areas has access to drinking water supply<sup>7</sup>. Whether this available water is safe or not nobody knows as there is no water monitoring and surveillance program. Southern Sudan bears an estimated 70 percent of the world's remaining Guinea Worm disease burden. Approximately one in four children die before turning five: of these deaths, 48 percent are due to water-related diseases. These statistics highlight a clear need for coordinated health and water strategies, and awareness-raising campaigns. Water supply is essential to curative health care. The lack thereof impacts on the provision of health services and education. In addition, the general lack of education has led to extremely low levels of health, hygiene awareness and practices.

### **3.0 PRIMARY EDUCATION**

Despite limited resources, the absence of education policy guidance and a functioning central organisation authority in the 1990s, a number of local communities took upon themselves with support from the local authorities and NGOs to open their own primary schools across

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<sup>4</sup> Mid year report 2005. Ministry of Health

<sup>5</sup> February 2005. Primary Health Care Department. Minister of Health. Health Situation, policy and plans 2005.

<sup>6</sup> April 1, 2005. National Immunization Days. BJS State Health Department.

<sup>7</sup> June 2005. MOH BJS mid year report.

southern Sudan. These communities were supported by Operation Lifeline Sudan (OLS) emergency education programme in southern Sudan from 1993 with the aim to support community initiatives to rebuild southern Sudan's education system (UNICEF/OLS, 2002). The education system was poorly co-ordinated with no policy guidance until in 2002 when the Sudan Peoples Liberation Movement (SPLM) produced its education policy with the goal of providing "Education for All" (EFA) in the midst of civil war and post-conflict Southern Sudan. Nevertheless, the education situation in southern Sudan remained precarious and far from meeting the minimum levels of the three EFA goals. a). Universal Primary Education which had a Gross Enrolment Rate of 30.0 b) Adult Literacy 33.0% and c) Gender Parity Index 0.36 [UNICEF/OLS (2002a, 2002b, 2000)]

**Annex VI: Summary of potential positive and adverse environmental effects of the BSF**

Summary of Potential Positive and Adverse Environmental Effects				
Anticipated results/activities	Linkages with environment?	Potential positive effects	Adverse environmental effects and potential risks	Proposed measures to mitigate or enhance
<p><b>Outcome 1</b></p> <p>Expanded provision and utilisation of basic services in underserved areas through establishment of fund providing facilities and training through non state actors</p>	<p>The establishment of health, water and sanitation services with training and outreach services in this direct manner is the most effective and efficient way to: 1) reach a large number of people; 2) Working with local partners to provide services; 3) Serves to build local capacity, over all activities; 4) ensures relevance of services;</p>	<ul style="list-style-type: none"> <li>· Contributing to long-term sustainability;</li> <li>· Promotes local ownership;</li> <li>· Easier accessibility to basic services, such as water, health and education. This is likely to have a positive effect by reducing tension.</li> </ul>	<p>Environmental impacts increased due to lack of best practice guidelines</p> <p>In health centres or clinics that handle medical waste, environmental effects may result.</p> <p>Individual BSF projects are unsustainable following end of BSF financing.</p>	<ul style="list-style-type: none"> <li>• <i>Introduce environmental sensitisation and management practices</i></li> <li>• <i>Monitor and report on environmental impacts</i></li> <li>• Overall transition strategy for BSF</li> <li>• Work to ensure that GoSS, MDTF, SRF etc. provide complementary and longer-term financing of service provision</li> </ul>
<p>Output 1.1</p> <p>Availability of basic services infrastructure in underserved areas enhanced (bricks, mortar and supplies).</p>	<p>Increase in returning refugees and IDP, humanitarian requirements or renewed humanitarian crisis</p>	<ul style="list-style-type: none"> <li>· Capacity of local NGOs are build and they become active in providing basic services in their communities</li> </ul>	<p>For HIV/AIDS support, if clinics or other facilities handle medical waste, environmental effects may result.</p> <p>Localised environmental damage through bad planning for the construction of buildings for schools, hospitals and boreholes</p> <p>Use of materials</p>	<ul style="list-style-type: none"> <li>• <i>Introduce environmentally friendly building technologies</i></li> <li>• <i>Bring down costs of building materials through BSF joint procurement</i></li> <li>• Funding flexibility</li> <li>• Emergency preparedness</li> <li>• Scenario planning</li> </ul>
<p>Output 1.2</p> <p>Service providers deliver improving and demand-led services in project areas (human resources).</p>	<p>The success of environmentally sound development depends on proper understanding of social needs and opportunities and of environmental characteristics;</p>	<ul style="list-style-type: none"> <li>· Increasing local government engagement in the planning and prioritisation of projects</li> </ul>	<p>Corruption limits the effectiveness of the BSF as a whole and its individual projects.</p>	<ul style="list-style-type: none"> <li>• Proper vetting of NGO service providers</li> <li>• Effective monitoring of individual projects finances</li> <li>• <i>Awareness of potential environmental impacts by local</i></li> </ul>

Summary of Potential Positive and Adverse Environmental Effects				
Anticipated results/activities	Linkages with environment?	Potential positive effects	Adverse environmental effects and potential risks	Proposed measures to mitigate or enhance
				<i>government and BSF staff</i>
<p><b>Outcome 2</b></p> <p>Improvement of GoSS and State governing planning, monitoring, and coordination of basic services.</p> <p>Improved accountability between non state service providers and GoSS and between service providers and their clients</p>	<p>Forms a basis for encouraging wider use of environmental objectives in planning and project activities</p> <p>Some of the most efficient and effective BSF funded projects were those conducted by local, not international service providers and NGOs.</p>	<ul style="list-style-type: none"> <li>Current BSF-projects have helped to build the capacity of front-line service providers (e.g. teachers and health workers) through training.</li> <li>Stimulate development processes at the local level</li> </ul>	<p>BSF remains the primary funding mechanism to provide sustained multi-year funding for the delivery of basic services</p>	<ul style="list-style-type: none"> <li>Work to ensure that GoSS, MDTF, SRF etc. are increasingly effective and focused on financing basic services.</li> <li><i>Expand GoSS representation in the steering committee with environmental and technology expertise</i></li> </ul>
<p>Output 2.1</p> <p>Officials at the GoSS, state and county level better able to plan, monitor and manage service provision in project areas.</p>	<p>Demonstrate to government the continued importance of non-state actors in the provision of basic services in the Southern Sudanese context.</p>	<ul style="list-style-type: none"> <li>BSF working with GoSS to prioritise projects for funding.</li> <li>Increasing local government engagement in the planning and prioritisation of projects</li> </ul>	<p>The Comprehensive Peace Agreement falters</p>	<ul style="list-style-type: none"> <li><i>Use environmental screening notes and fill out EIA questionnaire</i></li> <li>Continued international support to the implementation of the CPA</li> <li>Support for joint working mechanisms</li> </ul>
<p>Output 2.2</p> <p>Decision makers in government, civil society and development agencies understand the main lessons drawn from the BSF and its individual projects.</p>		<ul style="list-style-type: none"> <li>Projects have helped to build the capacity of front-line service providers (e.g. teachers and health workers) through training.</li> </ul>	<p>Lack of coordination and policy coherence</p> <p>No capacity in government institution to carryout the necessary strategic and administrative requirements</p>	<ul style="list-style-type: none"> <li><i>A balanced representation and active participation of GoSS officials in the steering committee</i></li> <li>Support the development of local oversight mechanisms</li> </ul>
<p><b>Outcome 3</b></p> <p>Shared approaches and good</p>	<p>Development processes at the local level.</p>	<ul style="list-style-type: none"> <li>BSF projects have also worked to build community capacity to</li> </ul>	<p>Experiences are not documented nor shared with local authorities</p>	<ul style="list-style-type: none"> <li>Invite government officials to be part of the design and</li> </ul>

Summary of Potential Positive and Adverse Environmental Effects				
Anticipated results/activities	Linkages with environment?	Potential positive effects	Adverse environmental effects and potential risks	Proposed measures to mitigate or enhance
practice in services delivery strategies, and development and dissemination of lessons learned	Development reach more of the segments of the population than do the large, centralized schemes;  Availability of basic services infrastructure in underserved areas enhanced (bricks, mortar and supplies).	oversee service provision through support to community oversight mechanisms  · Better-adapted projects and programmes are apt to provoke broader public support and cause less undesirable social displacement than a few large centralized projects.  · Local sources of energy can be better utilized, recycling, waste management practices	No environmental guidelines nor best practice	decision making process  • <i>Prepare a Compendium of environmental technologies to equip programme managers with viable technology solutions for services deliver</i>  • <i>Alternative/renewable energy solutions (e.g. Solar energy driven water pumps)</i>
<b>Output 3:</b>  Smooth transition to post-2011 financing and related support to BSF funded projects.		· The transition from primary education to secondary education, primary healthcare to higher levels of healthcare is secured and boreholes to increased used of gravity techniques in the provision of water  · Service providers deliver improving and demand-led services in project areas (human resources).  · The BSF has also helped to support the development of and demonstrate the effectiveness of Southern Sudanese Service providers;	GoSS, MDTF and SRF fail to assure complementary medium term financing for basic services  Localised insecurity and conflict impedes project implementation.	• Work to ensure that GoSS, MDTF, SRF etc. are increasingly effective and focused on financing basic services.  • <i>MDTF, SRF other mechanisms have strong EIA components</i>  • Support to GoSS payroll reform and implementation.  • BSF projects employ a conflict sensitive approach  • Peace-building, conflict management and resolution/reconciliation activities

Environmental related mitigation options in italics

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i Source: Summary of workshop on Policy and Institutional Development fro the water sector held in Nairobi, May 2005.

ii The draft USAID Operational Plan (2007)

iii Natural Resources and Rural Development Sector Draft Budget Sector Plan, 2008-2010 (July 2007),

iv Southern Sudan Environmental Threats And Opportunities Assessment United States Agency for International Development: International Resources Group (IRG). September 2007

v Funding Mechanisms in Southern Sudan: NGO Perspectives. Wendy Fenton, Consultant to the Juba NGO Forum. February 2008

v Wendy Fenton, Funding Mechanisms in Southern Sudan: NGO Perspectives. Juba, February 2008

vi African Technology Policy Studies Network (ATPS)

Framework For Sustained Peace, Development and Poverty Eradication: Joint Assessment Mission (JAM) Volume I, March 18, 2005